

## **Petroleum Refinery Efforts to Reduce Waste**

### ***DTSC and Petroleum Refiners Share Pollution Prevention Ideas***

OPPTD has focused on pollution prevention at petroleum refineries for several years. Since 1990, refineries have been working to comply with the Hazardous Waste Source Reduction and Management Review Act of 1989 (SB 14) and voluntarily implementing pollution prevention strategies at their facilities. Refinery pollution prevention efforts have resulted in dramatic reductions in the amounts of non-waste water hazardous waste they generate – 32% from 1990 to 1994, 19% from 1994 to 1998, and, based on preliminary data, 31% from 1998 to 2002. Although this industry has made great strides through voluntary pollution prevention efforts, they continue to be California's largest generator of hazardous waste.



*Tesoro's Golden Eagle Refinery in Martinez, California, strives for continual improvement through pollution prevention.*

The OPPTD and the Western States Petroleum Association (WSPA) have worked to bring environmental agencies, refinery environmental engineers and managers, and WSPA executives together to discuss solutions to environmental problems focusing on pollution prevention as the answer. People from this industry attended a technical forum in 2003 organized by OPPTD and WSPA to address ways to further reduce their hazardous waste generation by providing innovative solutions for problematic refinery waste streams. Forum topics included biologically activated carbon, spent abrasives management, and industrial ecology and have been compiled into a [technical proceedings report](#). Attendees appreciated the forum as an opportunity for technical exchange regarding pursuit of pollution prevention opportunities and problem avoidance.



*Behzad Mirzayi, Sub Surface Waste Management, explains benefits of biologically activated carbon.*

The positive response to this forum has prompted the team to organize a similar event for 2004. Topics may include: a multimedia discussion on soils management; policies and procedures for a pollution prevention program; new or innovative source reduction technologies; and a review of the results from the 2003 forum (i.e., which technologies were applied and what worked). The 2004 forum will focus on opportunities and obstacles to source reduction

and improved waste management practices, and will include speakers from industry, DTSC, and other Cal EPA boards and departments.

By design, the technical forum topics are not isolated to petroleum refineries. The target waste streams, pollution prevention strategies, and regulatory barriers are common to many large industries. Sharing innovative and effective solutions to common industrial waste problems will provide both economic and environmental benefits to many California industries.



*Gil Friend of Natural Logic explains the theory behind industrial ecology.*

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